B200 - LARC 02/23/16

Aircraft: <u>B200 - LARC</u> (<u>See full schedule</u>)

Flight Number: LVIS on B200 #15

Payload Configuration: AfriSAR 2016-LVIS

Nav Data Collected: Yes

Total Flight Time: 3.2 hours **Submitted by:** Richard Yasky on 02/26/16

Flight Segments:

From:	FOOL	То:	FOOL	
Start:	02/23/16 13:43 Z	Finish:	02/23/16 16:54 Z	
Flight Time:	3.2 hours			
Log Number:	<u>16B006</u>	PI:	Christy Hansen	
Funding Source:	Kathleen Hibbard - NASA - SMD - ESD Terrestrial Ecology			
Purpose of Flight:	Science			
Comments:	Gabon research flight #3. Flew East/west Biomass transect from point 6 to point 14, esentially from mid country to the far eastern area near Franceville. Flew a parallel return track with a few deviations to avoid stratus clouds below the aircraft and improve data collection. Deviated from a direct return to collect another transect of IRD box previously mapped. Attempted a ramp pass with the poor geometry but could not get a roll and pitch due to other traffic and required holding before the approach.			

Flight Hour Summary:

	16B006
Flight Hours Approved in SOFRS	106.5
Total Used	106.5
Total Remaining	0

16B006 Flight Reports						
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
02/02/16	LVIS on B200	Check	1.7	1.7	104.8	
02/05/16	LVIS on B200 #2	Science	1.9	3.6	102.9	
02/12/16	LVIS on B200 #3	Ferry	2.6	6.2	100.3	
02/12/16	LVIS on B200 #4	Ferry	2	8.2	98.3	
02/13/16	LVIS on B200 #5	Ferry	3.1	11.3	95.2	
02/13/16	LVIS on B200 #6	Ferry	3.1	14.4	92.1	
02/14/16	LVIS on B200 #7	Ferry	3.5	17.9	88.6	
02/14/16	LVIS on B200 #8	Ferry	3.5	21.4	85.1	
02/16/16	LVIS on B200 #9	Ferry	2.7	24.1	82.4	
02/16/16	LVIS on B200 #10	Ferry	3.6	27.7	78.8	
02/17/16	LVIS on B200 #11	Ferry	4.5	32.2	74.3	
02/17/16	LVIS on B200 #12	Ferry	3.8	36	70.5	

02/20/16	LVIS on B200 #13	Science	4.3	40.3	66.2
02/22/16	LVIS on B200 #14	Science	3.7	44	62.5
02/23/16	LVIS on B200 #15	Science	3.2	47.2	59.3
02/25/16	LVIS on B200 #16	Science	0.4	47.6	58.9
03/02/16	LVIS on B200 #17	Science	4.4	52	54.5
03/03/16	LVIS on B200 #18	Science	4.2	56.2	50.3
03/04/16	LVIS on B200 #19	Science	3.7	59.9	46.6
03/07/16	LVIS on B200 #20	Science	4.4	64.3	42.2
03/08/16	LVIS on B200 #21	Science	4.1	68.4	38.1
03/10/16	LVIS on B200 #22	Ferry	3.9	72.3	34.2
03/10/16	LVIS on B200 #23	Ferry	5	77.3	29.2
03/11/16	LVIS on B200 #24	Ferry	4.4	81.7	24.8
03/11/16	LVIS on B200 #25	Ferry	3.3	85	21.5
03/12/16	LVIS on B200 #26	Ferry	4.7	89.7	16.8
03/12/16	LVIS on B200 #27	Ferry	4	93.7	12.8
03/14/16	LVIS on B200 #28	Ferry	4.1	97.8	8.7
03/14/16	LVIS on B200 #29	Ferry	2.8	100.6	5.9
03/15/16	LVIS on B200 #30	Ferry	4.1	104.7	1.8
03/15/16	LVIS on B200 #31	Ferry	1.8	106.5	0

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

Afrisar - B200 - LARC 02/23/16 Science Report

Mission: Afrisar Mission Summary:

LVIS Flight #3 - Low Biomass Transect

~3.2 hour flight picking up the eastern 2/3rd of the Low Biomass transect.

Conditions in the am didn't look so great so we held off on the final decision and ultimately were able to take advantage of a clearing in the east for a 2pm takeoff.

Despite the proximity of thunderclouds (including overhead), LVIS ended up with near 80-90% coverage along the line

The return leg was offset by a few km and doglegged around clouds to get above 90% coverage.

We got 1 more pass over IRD using the LVIS "super swath" (where we place the LVIS footprints a few meters apart across a much narrower swath - with the intention of getting multiple LVIS footprints within a few of the ground plots).

Today we had planned on an early afternoon takeoff, potentially for a flight over Mondah, but ultimately the conditions did not support that and we scrubbed.

Data wise, we have been flying about 2000' lower than originally planned in order to combat the dust/haze present in the atmosphere and keep canopy penetration as high as possible.

Thanks, Michelle

Submitted by: Michelle Hofton on 02/24/16

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